



# Environment and Natural Resources Trust Fund

2025 Request for Proposal

## General Information

**Proposal ID:** 2025-019

**Proposal Title:** Teacher Field School - Phase 2: Increasing Impact

## Project Manager Information

**Name:** Patty Born

**Organization:** Hamline University

**Office Telephone:** (612) 501-5179

**Email:** pselly01@hamline.edu

## Project Basic Information

**Project Summary:** Building on our successful LCCMR-funded, immersive, research-backed Teacher Field School, we expand the network of nature-based educators and pilot a train-the-trainer model to increase student learning and stewardship habits.

**ENRTF Funds Requested:** \$760,000

**Proposed Project Completion:** June 30, 2028

**LCCMR Funding Category:** Environmental Education (C)

## Project Location

**What is the best scale for describing where your work will take place?**

Statewide

**What is the best scale to describe the area impacted by your work?**

Statewide

**When will the work impact occur?**

During the Project and In the Future

## Narrative

### **Describe the opportunity or problem your proposal seeks to address. Include any relevant background information.**

Minnesota's future depends on residents who value our natural resources. Youth connected to nature become adults who value and support natural resource investments. Nature-based education (NBE) helps teachers connect academic content with inquiry and meaningful stewardship, enhancing intellectual, physical and mental health (particularly for those most at risk); relevance; interdisciplinary connections; and educational outcomes; as well as conservation ethics. Teachers identify lack of knowledge, skills and confidence, grounded in gaps in professional development (PD), as barriers to NBE. Existing PD is often too short, narrow, and disconnected from standards. Evaluations of our pilot Teacher Field School (TFS) – nature-immersed weekend retreats to build capacity to employ NBE across the curriculum – were extremely positive with significant shifts in teachers' knowledge, competence and confidence, and uptake of NBE within the pilot school. With our current LCCMR grant, we are training 50+ Minnesota teachers in NBE. Demand is high – 196 applied for this year's cohort; 28 teachers from four schools were chosen for the first year. After MPR and national media coverage (attached), school districts from within MN and beyond have requested consultation. Clearly, Minnesota is a leader in this area. We must refine our model and increase our capacity to scale this work.

### **What is your proposed solution to the problem or opportunity discussed above? Introduce us to the work you are seeking funding to do. You will be asked to expand on this proposed solution in Activities & Milestones.**

With the success of, and demand for, our TFS, we address LCCMR priority C (indirectly BDEF) by 1) serving two additional cohorts, each of 28 teachers from Minnesota schools; 2) engaging TFS alumni and educational leaders to co-develop a "train-the-trainer" model to expand our reach; and 3) piloting the train-the-trainer model with a cohort of experienced nature-based educators. Teacher cohorts will have an immersive experience in NBE, building content knowledge, skills and confidence to integrate nature across their existing curriculum. Teachers will be guided in integrating NBE with new and existing Minnesota standards across ALL disciplines, many of which connect to Minnesota's unique environmental, social, and historical events that invite teachers to venture outdoors. Based on a US Dept of Education-funded model for preparing teacher-leaders at Hamline University, trainers will receive nature-immersed instruction in providing TFS cohort training. We are leveraging a multiplier effect: if each of 28 participating teachers has 25 students, together, they reach 700 students/year. The train-the-trainer model multiplies the effect and increases impact substantially: for example, if 12 trainers each train ten teachers in a year, those 120 teachers reach an additional 3000 students per year.

### **What are the specific project outcomes as they relate to the public purpose of protection, conservation, preservation, and enhancement of the state's natural resources?**

1. We will increase teacher and student understanding of and connectedness to nature, supporting commitment to natural resource conservation and outdoor recreation.
2. We will leverage partnerships to support teachers in addressing academic standards across the curriculum that directly connect students and teachers to issues specific to Minnesota's natural heritage.
3. Teachers will demonstrate measurable increases in self-reported skills, abilities, and dispositions toward NBE, resulting in gains in student engagement and learning outcomes as well as connection to nature in Minnesota.
4. We will expand capacity for teacher NBE PD across Minnesota through developing a statewide network of NBE teachers

## Activities and Milestones

**Activity 1: Year 1: Implement fourth TFS cohort, with emphasis on integrating academic standards and inclusion of diverse perspectives and community partners.**

**Activity Budget:** \$242,678

**Activity Description:**

Objective: Plan for delivery, implementation, outcomes, and evaluation of Field School, with steps for mid-course corrections.

Tasks:

1. Establish goals for program outcomes and teacher confidence and efficacy.
2. Recruit initial cohorts of 9 teams (24-26 teachers; 3-4 per school), representing grades k-12 from urban, suburban, and rural schools. Selection criteria include:  
geographic and sociodemographic balance between urban and rural;  
support and participation from school or district leadership because this increases likelihood for system change, clear articulation of goals for integrating NBE into the existing curriculum.  
Intentional recruitment of schools with high populations of underrepresented/marginalized communities.
3. PIs hold preparatory conversations with teams to create individualized support plans. Goals around culturally-sustaining practices that center students' lived experience and increase access to and enjoyment of natural resources will be translated into concrete steps to ensure smooth transition to NBE, and identification of NBE outcomes for individual teachers as well as teams and schools. This can help promote systems change as cohort members identify and articulate academic, social, and emotional outcomes for their students.
4. Launch student impact study to measure connectedness to nature and conservation mindsets.

**Activity Milestones:**

Description	Approximate Completion Date
Recruit and build cohort teams, establish team goals and finalize design of retreats	September 30, 2025
Conduct first retreat series and support teachers between retreats	June 30, 2026
Research and evaluate impacts of retreats on teachers; launch student impact study	June 30, 2026

**Activity 2: Years 2-3 Develop and Pilot a Train-the-Trainer Model to Extend Professional Development (PD) Capacity and Reach, Multiplying Impact on Students**

**Activity Budget:** \$227,023

**Activity Description:**

Objective: Building on successful teacher leadership models and standards, we pilot a train-the-trainer model to expand capacity to provide Nature-based education (NBE) PD to hundreds of teachers, who in turn, reach thousands of students.

Tasks:

1. Recruit a small advisory group of prior Teacher Field School (TFS) cohort members and experienced nature-based educators to provide input.
2. Develop and refine a framework for a two-year PD teacher-leadership model to train experienced and successful nature-based educators who will contribute to the broader uptake of NBE across Minnesota. During year 2 we will train trainers in NBE PD principles and orient them to the TFS retreat series content and delivery approach. During year 3, trainers will conduct, with PI support, the fifth TFS cohort (see Activity 3). Others will be supported in implementing self-designed PD in their local communities.
3. Recruit 12 teachers with NBE experience, prioritizing selection of prior TFS cohort members, as the first cohort of

trainers.

4. Implement the first year of the train-the-trainer model.

5. Evaluate the success of the train-the-trainer model in enhancing trainers' NBE knowledge and skills, PD knowledge and skills, satisfaction with the training, and ideas for improvement.

**Activity Milestones:**

Description	Approximate Completion Date
Recruit advisory members, design train-the-trainer model	September 30, 2026
Recruit and train first cohort of trainers	May 31, 2027
Conduct train-the-trainer program evaluation and refine student impact study	June 30, 2027

**Activity 3: Years 2-3 Support Nature-based Educator Trainers-in-Training in Conducting Fifth Cohort and Local PD**

**Activity Budget:** \$290,299

**Activity Description:**

Objective: Successfully prepare trainers to multiply impact on teachers

Description:

Cohort recruitment and PD implementation will proceed much as it has in prior cohorts, but select participants of the train-the-trainer program will take the lead, with our PI team providing support and coaching. This phase results in a fifth trained cohort of teachers (totaling 112 teachers between first LCCMR grant and this proposed LLCMR project), as well as a cohort of trained facilitators that can increase the PI team's PD capacity and multiply our PD efforts throughout Minnesota.

Tasks:

1. With PI support, selected trainers-in-training recruit 4-5 teams of K-6 teachers (28 max).
2. With PI support, trainers-in-training hold preparatory conversations with each team to create individualized support plans that identify NBE goals for individual teachers, the teacher teams, and schools.
3. With PI support, trainers-in-training implement retreat series and support teachers between retreats.
4. PI team meets with trainers-in-training to debrief each retreat and prepare for the next retreat.
5. PI team supports other trainers-in-training to develop and implement local PD offerings.
6. Administer pre-intervention teacher survey assessing NBE practices, skills, confidence and nature connectedness pre- and post-retreats, supplemented with focus
7. Continue program evaluation and student impact study

**Activity Milestones:**

Description	Approximate Completion Date
With PI team support, trainers-in-training recruit and build first cohort	June 30, 2027
Trainers-in-training and PI Team finalize retreat design, and conduct retreat series	June 30, 2028
PI team provides ongoing support to trainers-in-training	June 30, 2028
Continue evaluation and assessment, conduct outreach and continue dissemination	June 30, 2028

## Project Partners and Collaborators

Name	Organization	Role	Receiving Funds
Dr Cathy Jordan	University of Minnesota	Director of Leadership & Education at the Institute on the Environment and Professor of Pediatrics, University of Minnesota; Consulting Research Director, Children & Nature Network. Jordan will oversee the evaluation of this project, provide theoretical and evidence-based grounding for the NBE model, and serve as co-teacher during retreats.	Yes
Dr Carrie Jennings	Freshwater	Dr. Jennings is Director of Research and Policy at Freshwater Society. She will co-teach retreats, helping teacher participants develop landscape literacy, interpret the environmental history of the land, and understand the connections between land use and water quality.	Yes
Dr Kate Pound	Freshwater	Dr. Pound is a geology professor who works with pre- and in-service teachers to build earth science content knowledge and pedagogy in field settings. She will work with teachers at the Field School to build understanding of earth processes and help them integrate NBE, inquiry, and Minnesota standards into curriculum.	Yes
Dr Hillary Barron	Bemidji State University	Dr. Barron, descendent of the White Earth Band of Ojibwe, is biology faculty at Bemidji State University. Her research focuses on creating equitable and culturally responsive science learning. She co-developed the MN Ethnic Studies academic standards. For this project, she will advise on aligning NBE with Ethnic Studies state standards.	Yes
Lyz Jaakola	Fond du Lac Tribal and Community College	Lyz Jaakola, an enrolled member of the Fond du Lac band of Lake Superior Ojibwe, teaches Music, American Indian studies, and Media Production at Fond du Lac Tribal and Community College. She will work with teachers to integrate nature-based and arts-based approaches across the curriculum, grounded in traditional ecological knowledge.	Yes

## Long-Term Implementation and Funding

**Describe how the results will be implemented and how any ongoing effort will be funded. If not already addressed as part of the project, how will findings, results, and products developed be implemented after project completion? If additional work is needed, how will this work be funded?**

Teacher teams will be supported in implementing NBE, and in coaching and supporting colleagues at their schools during their cohort year and in the year following cohort participation. Our team will support trained trainers in implementing local PD. Program evaluation findings will be published and shared with teachers across Minnesota. Our team will use lessons learned to coordinate with Hamline to further expand and institutionalize the Teacher Field School; financial barriers to participation in a permanent Field School due to tuition and travel costs will be offset by successful fundraising efforts conducted by program partners or other collaborations.

## Other ENRTF Appropriations Awarded in the Last Six Years

Name	Appropriation	Amount Awarded
Teacher Field School: Stewardship through Nature-Based Education	M.L. 2022, , Chp. 94, Art. , Sec. 2, Subd. 05a	\$500,000

## Project Manager and Organization Qualifications

**Project Manager Name:** Patty Born

**Job Title:** Associate Professor, Environmental and STEM Education

**Provide description of the project manager's qualifications to manage the proposed project.**

Dr. Patty Born, EdD is Associate Professor at Hamline University's School of Education and Leadership. She directs the

Master of Arts in Natural Sciences and Environmental Education, the second highest-enrolled education program at Hamline. In this capacity, she works with teacher candidates and practicing teachers in a variety of educational contexts. She is lead faculty in the program and is also responsible for program accreditation, alignment to standards, teacher induction and support, and outreach.

Previously, Dr. Born led teacher professional development and managed the academic, evaluation, outreach, and administrative functions of the Center for STEM elementary education at St Catherine University which helped teachers make interdisciplinary connections between the disciplines of science, technology, engineering and mathematics. She had a decade-long, science and nature education consulting business serving schools through environmental and science curriculum development, and professional development. Throughout her career, Dr. Born taught in early childhood and elementary settings, served as a naturalist-in-residence and science specialist. She has written five books for educators as well as numerous peer-reviewed articles on nature-based education. Dr. Born is particularly interested in increasing the opportunities for high-quality STEM and environmental education in underserved communities. Through inquiry and hands-on experience, Dr. Born aims to help learners experience the joy and wonder of science and environmental education while also promoting deep intellectual curiosity and rigor. Of utmost importance is helping educators foster connection to, and investment in natural resources to ensure a healthy, sustainable Minnesota.

During her time at Hamline University, Dr. Born has been a Primary Investigator or Co-PI on grants totaling more than \$700,000. Previously, she managed a \$350,000 grant to fund her work in STEM teacher education and support, and has served as PI on numerous smaller grants to fund teacher professional development in the areas of STEM and environmental education.

**Organization:** Hamline University

**Organization Description:**

Hamline University's School of Education, the oldest school of education in the State of Minnesota, has a national reputation for offering high-quality teacher licensure programs and graduate education degrees. Grounded in best practices for inquiry-based pedagogy, equity-oriented practice, and support for teachers at every stage of their career, Hamline is a lifelong partner to teachers throughout Minnesota and beyond. Hamline partners with urban and rural districts throughout the state and has a vast network of supportive school administrators, teachers, paraprofessionals and other education professionals. With a decades-long history of offering continuing education and professional development to teachers throughout Minnesota, Hamline has served thousands of practicing teachers in refining their teaching skills or increasing their capacity and knowledge through additional licensure and learning opportunities. These experiences include courses offered at Hamline's campus, at off-campus sites, or online to educators in greater Minnesota and beyond; certificate programs in key areas of development for Minnesota teachers such as special education, environmental education, and gifted education (in many cases aligned with licensure programs offered by Hamline); district-specific professional development opportunities, offered upon request; and in-person or virtual conferences in focused areas such as STEM, literacy, social-emotional learning and nature-based education.

## Budget Summary

Category / Name	Subcategory or Type	Description	Purpose	Gen. Ineligible	% Benefits	# FTE	Classified Staff?	\$ Amount
<b>Personnel</b>								
Principal Investigator		Two, 4-credit course releases or stipend in each academic year 2025-26, 26-27, and 27-28			25%	0.3		\$56,168
							<b>Sub Total</b>	<b>\$56,168</b>
<b>Contracts and Services</b>								
University of Minnesota	Sub award	Program development, teach evidence base, evaluate project, supervise graduate student research				3.3		\$125,846
Freshwater	Sub award	Planning professional development content, developing materials, performing standards review, and on-site leadership, mentoring, and presentations.				0.75		\$282,730
Lyz Jaakola	Professional or Technical Service Contract	Native educator to co-lead 3 of 5 retreats yrs. 1 and 3; advise on train the trainer model development with respect to traditional ecological knowledge				-		\$7,000
Hillary Barron	Professional or Technical Service Contract	Consult on alignment with state academic standards and traditional ecological knowledge				-		\$1,000
							<b>Sub Total</b>	<b>\$416,576</b>
<b>Equipment, Tools, and Supplies</b>								
	Tools and Supplies	Daypacks with teaching gear: field journals, work gloves, writing utensils, measuring kits, safety equipment, water bottles, post-its, etc. Field guides or other resources, years 1 & 3.	Incidental needs that may arise during retreats, teacher toolkits of materials for 28 teachers in each of two cohorts, years 1 & 3.					\$18,000
	Tools and Supplies	Supplies budget for trainers, year 2.	Funds for trainers to purchase supplies relevant to their populations for use in their future PD cohorts, year 2.					\$28,000
	Tools and Supplies	Incidentals for retreats, years 1, 2 & 3.	Hand-warmers, first-aid kits, bug repellent, etc. for comfort and safety of participants, years 1, 2 & 3.					\$3,213

								<b>Sub Total</b>	<b>\$49,213</b>
<b>Capital Expenditures</b>									
								<b>Sub Total</b>	-
<b>Acquisitions and Stewardship</b>									
								<b>Sub Total</b>	-
<b>Travel In Minnesota</b>									
	Miles/ Meals/ Lodging	OSPREY WILDS Facility rental expense for one, three-day rental in Ys 1, 2 & 3. Total = \$7500 x 3 = \$22,500.	Rental of classroom space, facility fee, for field school site						\$22,500
	Miles/ Meals/ Lodging	Mileage to program sites--: retreats, ELC, school site visits (\$.67/mi for each of 3 years): Y1 approx 657 mi; Y2 & Y3 approx 457 mi each) Total 1,571 mi @ .67/mi = \$1,053.	Hamline/Born Travel expense reimbursement						\$1,053
	Miles/ Meals/ Lodging	Mileage to program sites: Y1: 28 teachers to 4 retreats at 80 miles rnd trip each = 8960 mi x \$.67/mi = \$6003, PLUS 28 teachers traveling 200 rnd trip mi. to Osprey Wilds = 5600 mi x \$.67/mi = \$3752; \$6003 + \$3752=\$9755. Y2: 12 trainers to 4 retreats at 80 mi rnd trip each (12x4x80) = 3840 mi x \$.67/mi = \$2752, PLUS 12 trainers traveling 200 mi rnd trip to Osprey Wilds (2400 mi X \$.67/mi = \$1608) \$2752 + \$1608 = \$4360. Y3: 28 teachers to 4 retreats at 80 mi rnd trip = 8960 mi x \$.67/mi = \$6003, PLUS 28 teachers traveling 200 mi rnd trip to Osprey Wilds = 5600 mi x \$.67/mi = \$3752; \$6003 + \$3752 = \$9755, PLUS 4 trainers to 4 retreats at 80 mi rnd trip, 4 x 80 x 4 = 5120 mi x \$.67/mi = \$3430 and 4 trainers traveling 200 me rnd trip to Osprey Wilds (800 mi x \$.67/mi) \$536; \$9755 + 3430 + 536 = \$13721. TOTAL Y1 \$9,755 + Y2 \$4,360 + Y3 \$13,721 = \$27,836.	Teachers and Trainers: Travel expense reimbursement						\$27,836
	Miles/ Meals/ Lodging	Mileage, guests and advisors \$.67/mi: Y1 = 5 individuals @ 80 mi. = 400 mi. Y2 = 5 individuals @ 80 mi. = 400 mi. Y3 = 5 individuals @ 80 miles = 400 mi. Total 1,200 mi @ .67/mi = \$804.	Guests and Advisors:Travel expense reimbursement						\$804



							<b>Sub Total</b>	<b>\$52,193</b>
<b>Travel Outside Minnesota</b>								
	Conference Registration Miles/ Meals/ Lodging	Conference registration for 4 project leaders (\$500 x 2 conferences x 4 project leaders, equals \$4,000).	reimbursement of conference registration to present program and findings	X				\$4,000
							<b>Sub Total</b>	<b>\$4,000</b>
<b>Printing and Publication</b>								
							<b>Sub Total</b>	<b>-</b>
<b>Other Expenses</b>								
		Stipend- cohort teachers	\$2,000 per teacher/ 28 teachers per cohort, Y1 and Y3 (2 years X 2000 X 28 = \$112,000).					\$112,000
		Stipend-Guest instructors, advisors	\$250 per guest instructor for 5 guest instructors (\$1,250) in yr. 1, 2, 3; OR train the trainer advisors in yr. 2 (\$1,250/year for five x 3 years = \$3,750).					\$3,750
		Stipend, Train the trainer participants	\$2,500 per participant for 12 participants = \$30,000 per year in years 2 & 3, total of \$60,000.					\$60,000
		Team lead discretionary fund	One-time payment of \$250 per team lead to support community of practice activities initiated by team leads/schools (5 team leads x 250 = \$1250 per year in years 1 and 3, total of \$2,500).					\$2,500
		Trainer discretionary fund	One-time payment of \$300 per trainer for year 3, to support professional development activities in their districts (\$300 per trainer x 12 trainers, total of \$3,600).					\$3,600
							<b>Sub Total</b>	<b>\$181,850</b>

							<b>Grand Total</b>	<b>\$760,000</b>
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## Classified Staff or Generally Ineligible Expenses

Category/Name	Subcategory or Type	Description	Justification Ineligible Expense or Classified Staff Request
<b>Travel Outside Minnesota</b>	Conference Registration Miles/Meals/Lodging	Conference registration for 4 project leaders (\$500 x 2 conferences x 4 project leaders, equals \$4,000).	registration only needed to present presentation of project findings

Non ENRTF Funds

Category	Specific Source	Use	Status	Amount
State				
			State Sub Total	-
Non-State				
			Non State Sub Total	-
			Funds Total	-

**Total Project Cost: \$760,000**

**This amount accurately reflects total project cost?**

Yes

## Attachments

### Required Attachments

#### *Visual Component*

File: [e1c7e436-3b9.pdf](#)

#### *Alternate Text for Visual Component*

Arrows indicating an influx of teachers to the Field School, and arrows extending out from the Field School demonstrating teachers teaching students and colleagues. A second illustration shows the "multiplier effect" of teachers reaching more students and colleagues after completing a Train the trainer model...

#### *Financial Capacity*

Title	File
Evidence of Good Standing doc, MN Secretary of State	<a href="#">1445781e-4cc.pdf</a>
Authorization to submit- HU/Dr. K. Murray	<a href="#">350a4ebe-365.pdf</a>
Public copy 990	<a href="#">18a50288-cfd.pdf</a>
Audit report Hamline	<a href="#">8ca4009d-363.pdf</a>

### Supplemental Attachments

#### *Capital Project Questionnaire, Budget Supplements, Support Letter, Photos, Media, Other*

Title	File
MPR media coverage of TFS	<a href="#">9d1a4634-a29.pdf</a>
Letter of Support Edina Public School/Rieckenberg	<a href="#">384d6a56-3c1.pdf</a>
Letter of Support Osprey Wilds/Wood	<a href="#">e0dbc459-6f0.pdf</a>
Letter of Support Bemidji/Barron	<a href="#">4a657ce8-02b.pdf</a>
Screenshot-Teacher Field School page-Hamline	<a href="#">940ae6e5-135.pdf</a>
Children and Nature network article about TFS	<a href="#">a83404ee-e9e.pdf</a>
Map of schools that responded to first TFS call for applicants	<a href="#">2ebd39d6-023.pdf</a>
Letter of Support North American Association for Environmental Education	<a href="#">be2a92ae-595.pdf</a>
Letter of Support Freshwater	<a href="#">68603803-8d2.pdf</a>
Letter of Support-Jaakola	<a href="#">4b0edc75-042.pdf</a>
Letter of Support U of MN SPA	<a href="#">a4df3640-b41.pdf</a>
Letter of Support Belwin/SPPS	<a href="#">3fe5c2f8-094.pdf</a>

## Administrative Use

**Does your project include restoration or acquisition of land rights?**

No

**Does your project have potential for royalties, copyrights, patents, sale of products and assets, or revenue generation?**

No

**Do you understand and acknowledge IP and revenue-return and sharing requirements in 116P.10?**

N/A

**Do you wish to request reinvestment of any revenues into your project instead of returning revenue to the ENRTF?**

N/A

**Does your project include original, hypothesis-driven research?**

No

**Does the organization have a fiscal agent for this project?**

No

**Does your project include the pre-design, design, construction, or renovation of a building, trail, campground, or other fixed capital asset costing \$10,000 or more or large-scale stream or wetland restoration?**

No

**Do you propose using an appropriation from the Environment and Natural Resources Trust Fund to conduct a project that provides children's services (as defined in Minnesota Statutes section 299C.61 Subd.7 as "the provision of care, treatment, education, training, instruction, or recreation to children")?**

No

**Provide the name(s) and organization(s) of additional individuals assisting in the completion of this proposal:**

Donald Long, Hamline University